

## Message Text

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ACTION EUR-12

INFO OCT-01 ISO-00 SS-15 NSC-05 CIAE-00 PM-03 INR-07 L-02

ACDA-05 NSAE-00 PA-01 PRS-01 SP-02 TRSE-00 SAJ-01

SSO-00 NSCE-00 INRE-00 EB-07 USIE-00 COME-00 MC-02

OES-03 /067 W

----- 087286

O 260923Z MAR 75 ZFF4

FM AMEMBASSY BRUSSELS

TO SECSTATE WASHDC IMMEDIATE 3484

SECDEF WASHDC IMMEDIATE

SEC AIR FORCE WASHDC IMMEDIATE

AMEMBASSY COPENHAGEN IMMEDIATE

AMEMBASSY THE HAGUE IMMEDIATE

AMEMBASSY OSLO IMMEDIATE

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E.O. 11652: N/A

TAGS: MASS, BE

SUBJECT: F-104 REPLACEMENT

REF: BRUSSELS 2605

1. THE TEXT OF THE PAPER REFFERRED TO IN THE REFTEL  
FOLLOWS.

2. BEGIN TEXT. AIRCRAFT CAPABILITY

A. AIRCRAFT AND MILITARY EXPERTS AGREE THE THE F-16 HAS  
PERFORMANCE SUPERIOR TO ANY OTHER FIGHTER AIRCRAFT IN ITS  
CLASS.

B. THE F-16'S PROVEN F-100 ENGINE, ITS ADVANCED ECONOMICAL  
DESIGN AND LIGHT WEIGHT, MADE POSSIBLE BY THE LATEST  
TECHNOLOGY, ALL CONTRIBUTE TO ITS SUPERIORITY AS AMULTI-  
MISSION AIR COMBAT FIGHTER.

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--ITS COMBAT ACCELERATION IS 42 PERCENT GREATER THAN ITS

NEAREST COMPETITOR. IT CLIMBS FROM TAKEOFF TO 10,000 METRES THREE TIMES FASTER THAN ITS NEAREST COMPETITOR.  
--IT CAN OUTMANEUVER ALL COMPETITORS BY SUSTAINING TURNS MORE THAN 50 PERCENT TIGHTER THAN EITHER COMPETITOR. (E.G., AT 20,000 FT. THE F-16 TURNS AT 10.7 DEGREES PER SECOND COMPARED TO 6.6 AND 6.3 FOR ITS COMPETITORS).  
--IT CARRIES ORDNANCE FURTHER THAN EITHER COMPETITOR. IT CARRIES ITS MAX LOAD OF 11,500 LBS. 30 PERCENT FURTHER THAN THE F-1 CARRIES 7,750 LBS.

C. THE F-16 IS A PROVEN AIRCRAFT. IT HAS BEEN FULLY DEMONSTRATED IN A LENGTHY AND RIGOROUS TEST PROGRAM OF OVER 386 FLIGHTS AND 474 HOURS. THE FULLY DEVELOPED F-100 ENGINE IS SUPERIOR TO ANY ENGINE EVER BUILT AND IS ALREADY IN PRODUCTION FOR THE F-15 EAGLE.

D. WHEN THE FIRST PRODUCTION F-16 IS DELIVERED, THE ENGINE WILL HAVE BEEN OPERATED OVER ONE-HALF MILLION FLIGHT HOURS, AS COMPARED TO 2,000 -3,000 HOURS FOR ANY COMPETITOR'S ENGINE.

E. THESE FACTS CONTRIBUTED TO THE U.S. AIR FORCE SELECTION OF THE F-16 TO BE INTS NEWEST FIRST-LINE FIGHTER AND TO BUY AN INITIAL QUANTITY OF 650 AIRCRAFT.

## 2. COST

A. THE F-16 IS DESIGNED TO HALT THE SPIRALING COST OF BUYING AND OPERATING WEAPONS SYSTEMS.  
--THE U.S. GOVERNMENT'S NOT-TO-EXCEED COST FOR THE F-16 IS \$6.09 MILLION. THE MOST PROBABLE COST WILL BE \$5.69 MILLION.  
--THE COST OF SPARES IS DRAMATICALLY REDUCED BY HIGH RELIABILITY COMPONENTS (THE FRUIT OF TECHNOLOGY) AND THE FREQUENT USE OF COMMON THROUGHOUT THE AIRPLANE.  
--THE MODULAR DESIGN OF THE ENGINE RESULTS IN REDUCED SPARE COSTS (NO COMPLETE SPARE ENGINES) AND GREATLY SIMPLIFIED MAINTENANCE.  
--ON-BOARD SELF TEST FEATURES ELIMINATE MOST GROUND LIMITED OFFICIAL USE

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TEST EQUIPMENT.  
--FIFY PERCENT OF THE AIRCRAFT SURFACE IS HINGED OR REMOVABLE FOR EASY ACCESS.  
--MAINTANANCE MAN-HOURS USED FOR EACH FLYING HOUR ARE ONE-THIRD OF THOSE REQUIRED FOR THE F-104G.  
-THE U.S. GOVENMENT ESTIMATES THAT FUEL COSTS ALONE WILL BE AT LEAST 20 PERCENT LESS THAN FOR EIGHTER COMPETITOR. BELGIUM WOULD SAVE IN EXCESS OF

BF2,000,000,000 OVER THE TWENTY-YEAR LIFETIME OF ITS  
116 AIRCRAFT. (USING 9BF/LITRE AND 250 OPERATING  
HOURS/YEAR).

### 3. RADAR

A. TWO RADARS INCORPORATING MAJOR ADVANCES IN  
TECHNOLOGY ARE CURRENTLY IN COMPETITION FOR THE F-16.  
THE ESTIMATED COST OF THE RADAR HAS BEEN INCLUDED IN  
THE PRICE OF THE AIRCRAFT QUOTED ABOVE.

B. THESE COHERENT PULSE-DOPPLER RADARS, WHICH ARE  
UNIQUE IN THE WORLD TODAY, HAVE THE ABILITY-THROUGH  
THEIR "LOOK DOWN" FEATURE--TO DETECT LOW FLYING AIRCRAFT  
WHICH PREVIOUSLY HAVE BEEN ABLE TO ESCAPE DETECTION BY  
HIDING IN THE "GROUND CLUTTER." A SECOND FEATURE IS  
THE EXTREMELY ACCURATE RADAR DISPLAY USED FOR GROUND  
MAPPING.

### 4 MARKET IMPACT ON BELGIAN INTERESTS

A. THE F-16 COMMANDS A SUBSTANTIAL ADVANTAGE IN THE  
WORLD MARKETS BOTH SHORT AND LONG TERM.  
--THERE IS AN ASSURED INITIAL MARKET OF 1,000 F-16'S  
(650 USAF PLUS 350 CONSORTIUM) VERSUS A LESS CERTAIN  
INITIAL MARKET OF 500 F-16'S (150 USAF PLUS 350  
CONSORTIUM).  
--THE LONGER TERM MARKETS FOR THE F-16 ARE SEVERAL  
TIMES LARGER THAN FOR EITHER COMPETITOR. (6.2 TIMES  
MORE U.S. FIGHTERS SOLD THAN FRENCH.)  
--THE U.S. GOVERNMENT ANTICIPATES THIRD COUNTRY SALES  
IN EXCESS OF 2,000.  
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--THE EUROPEAN CONSORTIUM HAS THE OPPORTUNITY TO  
CONTINUE ITS 15 PERCENT SHARE FOR THIRD COUNTRY SALES  
WITHOUT LIMITING THE TOTAL RECOUPMENT.  
--THE GENERAL DYNAMICS COPRODUCTION PLAN PROVIDES

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TO SECSTATE WASHDC IMMEDIATE 3485

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ONE-HUNDRED PERCENT BELGIAN RECOUPMENT WHEN

APPROXIMATELY 700 THIED CONTRY AIRCRAFT ARE PRODUCED.

-- THE CONSORITUM COULD CONSERVATIVELY EXPECT FOLLOW-ON

PRODUCTION WOURTH APPROXIMATELY \$900,000 FOR EACH THIRD

COUNTRY AIRPLANE. THIS REPRESENTS POTENTIAL FOREIGN

EXCHANGE EARNING OF BILLIONS OF BELGIAN FRANCS.

--THE USAF HAS ANNOUNCED THAT IT WILL DEPLOY UP TO

250 F-16'S TO EUROPE AND WILL UTILIZE EUROPEAN

MAINTANANCE AND OVERHAUL FACILITIES FOR THEIR SUPPORT.

THIS WILL PROVIDE ADDITIONAL EMPLOYMENT AND FOREINGN

EXCHANGE INCOME TO EUROPE.

5. TECHNOLOGY TRANSFER

A. ALL OF THE REMARKABLE NEW TECHNOLOGY WILL BE

TRANSFERRED TO EUROPEAN INDUSTRY. AMONG THE MORE

IMPORTANT NEW TEMS ARE:

-FLY-BY-WIRE CONTROLS.

--CONTROL CONFIGURED VEHICLE DESIGN.

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--LOOD-DOWN RADAR.

--GRAPHITE COMPOSITE STRUCTURES.

--HOT-FORMED TITANIUM PARTS.

--MICRO-MINIATURE ELECTRONICS.

--AUTOMATIC, VARIABLE CAMBER WINGS.

--HIGH TECHNOLOGY TURBO-FAN ENGINE.  
--ADVANCED HONEYCOMB STRUCTURES.  
--HIGH-VISIBILITY BIRD-PROOF CANOPY.  
--ADVANCED AIRBORNE COMPUTERS.

B. THESE TECHNOLOGIES WILL REVITALIZE THE EUROPEAN AEROSPACE INDUSTRY AND PROVIDE IMPORTANT SPIN-OFFS FOR NON-DEFENSE PRODUCTS.

## 6. ECONOMIC FACTORS

A. INFLATION: THE PRICE OF THE F-16 ASSUMES AN INFLATION RATE OF APPROXIMATELY SIX AND ONE-HALF PERCENT PER YEAR. THIS IS A PESSIMISTIC ASSUMPTION. IN THE LAST 20 YEARS, U.S. PRICE INCREASES HAVE AVERAGED ABOUT THREE AND ONE-HALF PERCENT PER YEAR. OVER THE TIME PERIOD OF THE F-16 PROGRAM, WE EXPECT U.S. PRICE INCREASES TO BE CLOSER TO THREE AND ONE-HALF THAN SIX AND ONE-HALF PERCENT.

B. EXCHANGE RATE: THE DOLLAR-FRANC RATE IS CURRENTLY ABOUT \$1 TO BF 35. THERE IS NO SURE WAY TO KNOW THAT THE FUTURE RATE WILL BE. IT COULD GO UP OR GO DOWN. BUT THE COMBINATION OF FACTORS THAT PRODUCED THE PRESENT RATE IS LIKELY TO PERSIST.

C. INTER-RELATIONSHIP: IT WOULD BE HIGHLY UNLIKELY THAT A HIGH RATE OF INFLATION IN THE U.S. RELATIVE TO BELGIUM AND A STRENGTHENING OF THE U.S. DOLLAR VIS-A-VIS THE BELGIAN FRANC WOULD TAKE PLACE CONCURRENTLY.

D. EMPLOYMENT: IF THE BELGIAN COPRODUCTION PROGRAM PROPOSED BY GENERAL DYNAMICS AND PRATT & WHITNEY IS FULLY IMPLEMENTED, INITIAL EMPLOYMENT WILL BEGIN IMMEDIATELY UPON SELECTION OF AIRCRAFT. THE EMPLOYMENT GAIN FOR BELGIUM WOULD BE ALMOST 2,000 AS EARLY AS 1976, RISING TO ALMOST 10,000 IN THE EARLY LIMITED OFFICIAL USE

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1980'S WHEN FULL PRODUCTION IS ACHIEVED. THESE ESTIMATES ARE BASED ON THE CONSERVATIVE PROGRAM OF 1,500 PLANE PRODUCTION; IF SALES PROVED SUBSTANTIALLY GREATER, THE DIRECT EMPLOYMENT BENEFITS COULD EXTEND THROUGH THE 1980'S. EMPLOYMENT WOULD BE CREATED IN ALL REGIONS OF BELGIUM.

E. BELGIAN INDUSTRIAL PARTICIPATION CAN INCLUDE THE FOLLOWING ELEMENTS OF CONSTRUCTION AND ASSEMBLY: BRUSSELS AND GOSSELIES

AIRFRAME: AFT FUSELAGE STRUCTURE, WING BOX STRUCTURE, VERTICAL FIN STRUCTURE, AIRPLANE ASSEMBLY AND FLY-OUT

LIEGE

ENGINE: INLET/FAN MODULE, CORE ENGINE MODULE, ENGINE ASSEMBLY  
AND TEST

CHARLEROI, ANTWERP, GENT AND OOST-KAMP

AVIONICS: RADAR DATA PROCESSOR, RADAR SIGNAL  
PROCESSOR, RADAR RECEIVER-EXCITER, RADAR TRANSMITTER,  
FLIGHT CONTROL COMPUTER, AND HUD-ELECTRONIC UNIT  
END TEXT.

7. THIS PAPER WAS PREPARED JOINTLY BY THE EMBASSY,  
THE MAAG, GENERAL DYNAMICS, AND PRATT AND WHITNEY. FIRESTONE

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## Message Attributes

**Automatic Decaptioning:** X  
**Capture Date:** 01 JAN 1994  
**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** TEXT, FIGHTER AIRCRAFT, MILITARY PROCUREMENT, MILITARY CAPABILITIES, AIRCRAFT SALES, MILITARY POLICIES  
**Control Number:** n/a  
**Copy:** SINGLE  
**Draft Date:** 26 MAR 1975  
**Decaption Date:** 01 JAN 1960  
**Decaption Note:**  
**Disposition Action:** RELEASED  
**Disposition Approved on Date:**  
**Disposition Authority:** MorefiRH  
**Disposition Case Number:** n/a  
**Disposition Comment:** 25 YEAR REVIEW  
**Disposition Date:** 28 MAY 2004  
**Disposition Event:**  
**Disposition History:** n/a  
**Disposition Reason:**  
**Disposition Remarks:**  
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**Enclosure:** n/a  
**Executive Order:** N/A  
**Errors:** N/A  
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**Office:** ACTION EUR  
**Original Classification:** LIMITED OFFICIAL USE  
**Original Handling Restrictions:** n/a  
**Original Previous Classification:** n/a  
**Original Previous Handling Restrictions:** n/a  
**Page Count:** 6  
**Previous Channel Indicators:** n/a  
**Previous Classification:** LIMITED OFFICIAL USE  
**Previous Handling Restrictions:** n/a  
**Reference:** 75 BRUSSELS 2605  
**Review Action:** RELEASED, APPROVED  
**Review Authority:** MorefiRH  
**Review Comment:** n/a  
**Review Content Flags:**  
**Review Date:** 16 APR 2003  
**Review Event:**  
**Review Exemptions:** n/a  
**Review History:** RELEASED <16 APR 2003 by ShawDG>; APPROVED <20 MAY 2003 by MorefiRH>  
**Review Markings:**

Margaret P. Grafeld  
Declassified/Released  
US Department of State  
EO Systematic Review  
05 JUL 2006

**Review Media Identifier:**  
**Review Referrals:** n/a  
**Review Release Date:** n/a  
**Review Release Event:** n/a  
**Review Transfer Date:**  
**Review Withdrawn Fields:** n/a  
**Secure:** OPEN  
**Status:** NATIVE  
**Subject:** F-104 REPLACEMENT  
**TAGS:** MASS, BE  
**To:** STATE  
**Type:** TE  
**Markings:** Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 05 JUL 2006